

An excursion to the Platte.

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I have thought an account of a botanical excursion to the Platte river region of Central and Western Nebraska might be of interest to botanists. I had been planning for some time to make a trip from Hastings to the Platte valley, but failed to make arrangements to go until May 21. The excursion was preceded by a preliminary trip May 14 for the purpose of selecting good botanizing grounds; also, another hasty trip was made to a point some three miles further up the river May 24. In all, points extending some four or five miles along the river were visited, and the list of plants may include some found in each or all of the trips.

Sixteen of us started early in the morning of May 21 for a fifteen-mile drive over the prairie to the valley. Keeping directly north along the railroad toward Grand Island, where the land was cultivated, nothing of interest was found, except the occasional appearance of *Taraxacum officinale* about dwellings. This plant, so common everywhere in the East, was never seen here until within the last two or three years, but from its present growth it promises to become quite a pest to farmers. Six miles north of Hastings we turned to the west, and, going some five miles, found the open, uncultivated prairie, and the typical flora growing upon a sod which had never been disturbed by man, the only sign of civilization being a slightly broken wagon road across the prairie, and at long intervals a small farm-house. Sometimes these were built of sod or were the much talked of "dug-outs." The first settlers in this country took "claims" down in the river valley, thinking this to be the best land, and when railroads were built the second group of settlers felt that they must be within hearing distance of the cars or they were entirely out of the pale of civilization; so that it is still possible to find within a few miles of a city of twelve thousand inhabitants soil owned by speculators which is still covered by the virgin sod. Out upon this prairie we found *Viola delphinifolia* and *Callirrhoe alcaëoides*. Heretofore *C. involucrata* has been most abundant here, and has received the name of "Platte Valley rose" from the people living along the Platte. This year I have been unable to find a single specimen, and there has been but one brought in by my students, while *C. alcaëoides* is abundant everywhere.

Oxalis violacea, with its purple flowers, almost covered the ground in places on the prairie. Last year *O. corniculata* outnumbered *O. violacea*, while this year it is very scarce, as I have only seen a very few specimens. There were also found in great abundance *Amorpha canescens* (just beginning to bud nicely), *Astragalus caryocarpus*, *Oxytropis Lamberti*, *Antennaria plantaginifolia* (mostly in fruit), *Senecio aureus* var. *Balsamitæ*, and *Troximon cuspidatum*. *Astragalus caryocarpus*, with its large, nut-shaped fruit, grows everywhere over the prairies. Its flowers vary in color from dark purple to almost white, not one in twenty of which could be termed "violet." The people call the fruit "buffalo bean," and its great size and beauty is a thing of which they like to boast. Among the rarer plants seen on the prairie were *Malvastrum coccineum*, *Rhus Toxicodendron*, *Lathyrus polymorphus*, *Ænothera serrulata*, *Gaura coccinea*, *Pentstemon albidus*, and *Sisyrinchium mucronatum*. *Lathyrus polymorphus*, I believe, has not been reported as being found this far north, at least in the "Flora of the Rocky Mountains," but I have seen it several times in favorable localities.

After some time spent upon the prairie we pushed on to the border-hills of the Platte valley. Here we stopped for another search in the ravines and along hill-sides. In addition to several of the plants already mentioned, we found *Ranunculus rhomboideus*, *Psoralea lanceolata*, *Aplopappus spinulosus* (just beginning to bloom), *Lithospermum hirtum*, and *Veronica peregrina*.

The inner man now calling for some new supplies, we drove down into the valley proper and camped out, the ladies of the party spreading lunch upon as beautiful a piece of velvety lawn as one will see anywhere. The Platte valley is here a mile and a half or two miles wide and bordered by low, sandy hills. Next to the Missouri, the Platte river is, perhaps, the muddiest, and changes its bed oftener than any other river in the world. Generally, however, it flows near the middle of the valley, but its banks are always crumbling and falling in and the bed of the river is full of islands and sand-bars. The cause of this changing is found in the very loose, sandy soil and the swiftness of the water. This, in turn, makes it a good transporter of plants, as we saw to our delight.

Lunch being over, part were detailed as drivers, while the rest of us spread out over the valley to take in whatever

could be found in the way of plants. In this way we moved up the river. It did not take long to discover that we were in a flora differing from that of the prairie almost as much as if it had been on the other side of a continent. *Viola delphinifolia*, *Callirrhoe alcaëoides*, *Oxytropis Lamberti*, and *Senecio aureus*, var. *Balsamitæ* occurred occasionally, while *Sisyrinchium mucronatum*, which was somewhat rare on the prairie, almost covered the river bottom. Everything else was new. In the water of a slough we found *Ranunculus multifidus*, *Erigeron Philadelphicus*. *Viola palmata*, var. *cucullata*, and *Lithospermum angustifolium* were occasionally found, while *Salix longifolia* lined the river bank in places. Among the best "finds" made were *Crepis runcinata*¹ and *Plantago eriopoda*, both of which seem to belong farther west, at least they have not been found east of Colorado. *Cypripedium parviflorum*, which is said to be quite rare in this state, was very abundant in one place.

At one point along the river several acres of the bottom were found very thickly dotted with *Cypripedium candidum*. Local botanists claim that this is the only place in the state where it is found. Perhaps this is true, as it is no doubt very rare. The plant, however, whose presence here surprised me most, was *Lysimachia thyrsiflora*. This is, or has always been considered, a distinctly eastern species, although I have a specimen in my herbarium from Iowa, as well as from the east. This is, I think, the first time it was ever found so far west. More abundant than anything else in the valley was *Hypoxis erecta*, the ground being thickly set all over with its yellow, star-like flowers. Among other things found were *Smilacina stellata*, *Tradescantia Virginica*, *Eleocharis palustris*, *Carex tetanica*, *C. filiformis*, var. *latifolia*, *C. stricta*, *C. straminea*, *Equisetum arvense*, and *E. lævigatum*.

The study of this flora becomes exceedingly interesting because, with a large river running almost directly east, we have a natural channel for the distribution of plants, and here we have plants from the extreme east and west. With two large and very swiftly flowing rivers rising in the mountains west of us and flowing to the east, and several lines of railroads entering the state from different directions, one may expect to find a very large and diverse flora and ought not to be surprised if strays from almost any part of the country should be found here.

[¹This species is reported on the prairies of Iowa and the Red River valley of Minnesota.—Eds.]